

D.P.U. 87-136

Petition of over 20 customers in Acton, pursuant to G.L. c. 164, § 93, requesting an investigation by the Department of Public Utilities upon their complaint regarding quality and price of the electricity sold by Boston Edison Company.

APPEARANCES: Chairman of the Board of Selectmen
Town of Acton
472 Main Street
Acton, Massachusetts 01720

-and-

Wiley Mitchell
P.O. Box 672
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Petitioners

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Boston Edison Company
800 Boylston Street
Boston, Massachusetts 02199
FOR: BOSTON EDISON COMPANY
Respondent

I. INTRODUCTION

On July 7, 1987, pursuant to G.L. c. 164, § 93, a group of more than 20 individual ratepayers ("Petitioners") in Acton filed with the Department of Public Utilities ("Department") a request for investigation by the Department of their complaint regarding the quality and price of electricity sold and delivered by Boston Edison Company ("Boston Edison" or "Company"). The Petitioners raised several complaints with regard to quality of service and elimination of the electric heat rate. The petition was docketed as D.P.U. 87-136.

Pursuant to notice duly issued, a public hearing was held in Acton on October 1, 1987, to afford interested persons an opportunity to be heard. At the hearing, the following persons testified under oath on behalf of the ratepayers of Acton: then Chairman of the Acton board of Selectmen, Donald Gilberti; Edward Sayre, a resident of Acton; Jim Howard, president of the Board of Directors of the Nagog Woods Community Corporation; David Thomkins, resident of Nagog Woods; James Cornblatt, resident of Nagog Woods; Norman Bein, resident of Nagog woods; Nadine Rebovich, resident of West Acton. No petitions to intervene were filed.

The Company responded to three sets of information requests. The Department hereby marks and enters into evidence the Company's November 13, 1987 report to the Massachusetts Department of Public Utilities ("Report") as Exhibit DPU-1, the Company's responses to the Department's second set of information requests as Exhibits DPU-2-1 through DPU-2-15 and the Company's responses to the Department's third set information requests as Exhibits DPU-3-1 through DPU-3-18.

II. POSITIONS OF THE PARTIES

A. Petitioners

The Petitioners asserted that, at the time of the petition, the electric service provided to the Town of Acton ("Acton") by the Company was unacceptable (Petition at 1).

Specifically, the Petitioners complained of the following problems: excessive outages; failure of the Company to follow established procedures and to conduct routine maintenance; poor reliability of the Company's system for tracking reliability of service; unsatisfactory communication with the Company regarding quality of service complaints; insufficient capacity of the Company's emergency telephone number; inadequacy of the Company's system for communicating with customers during prolonged outages (id. at 1-2; Tr. at 10-12, 29-30, 34-35, 41). At the public hearing, residents of Acton testified about the inadequacy of the Company's tree trimming efforts (Tr. at 10-12). Residents also testified at the public hearing about their concerns involving a nightly brownout or five-volt reduction (Tr. at 25-26; 29-30). Persons testifying at the public hearing specifically noted the need to upgrade service in Acton's Indian Village area (Tr. at 41). In addition, residents testified regarding the need for improved customer service with respect to the handling of emergency calls (Tr. at 34-35).

The Petitioners further protested the termination of the Company's electric heat or R-3 rate (Petition at 2; Tr. at 16-17, 25-27). In Boston Edison Company, D.P.U. 85-266-A/85-271-A at 236 (1986), the Department eliminated the R-3 rate, consistent with the elimination of other end-use rates.

B. Respondent

On November 13, 1987, the Company filed with the Department its Report addressing the concerns raised by the Petitioners' complaint. The Report detailed actions to improve the reliability of electric service in Acton which were either completed, underway, or in the planning process at the time (Exh. DPU-1, at 1). Specifically, the Report provided information regarding: actions to improve service, quality of service, distribution maintenance programs, distribution line monitoring and operation, reliability tracking/reporting, system design, communications, electric heat rates and alternatives to electric heat rates (id. at 2-28). Subsequently, the Company responded to two rounds of information requests regarding plans detailed in the report (Exhs. DPU-2-1 through DPU-2-15; DPU-3-1 through DPU-3-18).

With respect to actions to improve service, the Company outlined projects designed to reduce outage duration (Exh. DPU-1, at 1-7). The Company stated that it had undertaken to increase the number of circuits to which load could be transferred during an outage, the number of sectionalizing devices on circuits to allow circuits to be broken into smaller segments, and the number of ties between circuits to speed the location of a faulted element and to aid in directing restoration crews to the faulted elements (id.).

The Company described new action taken and updated plans to increase tree trimming activity in Acton to reduce the number of outages due to storm damage (id. at 5; Exh. DPU-3-1). The Company indicated that a three-year tree trimming cycle had proved successful (Exh. DPU-3-2). In addition, Boston Edison also stated that, at the time of the report, it had already replaced wires with stronger, covered wire and planned to replace

more wires (Exh. DPU-1, at 6).

With respect to quality of service, the Company addressed actions taken or planned with regard to voltages and transients¹ (id. at 14). The Company stated that switchable capacitors had been installed on circuits to boost capacity (id. at 8). Boston Edison noted that it had also adjusted the timing of capacitors to avoid sudden changes in voltage (id. at 9). The Company stated that it was developing a consumer awareness program to provide residential customers with information regarding transients and momentary outages that occur in the normal course of electric service (id. at 14). Subsequently, the Company provided a copy of its Dialog newsletter that was included in customer bills in January 1990 (Exh. DPU-3-15). The Company also noted that it provided troubleshooting services on a limited basis to investigate recurrent transients (Exh. DPU-1, at 14). The Company provided a summary of annual interruption duration from January 1988 through December 1993 indicating a general downward trend (Exh. DPU-3-4).²

With respect to distribution maintenance programs, Boston Edison outlined its procedures (Exh. DPU-1, at 14-15). The Company stated that it inspected automatic line sectionalizers each year, replacing those in service for five years (id. at 14). Boston Edison reported that pad mounted equipment, distribution apparatus on customer property, regulators and capacitors were inspected and maintained annually (id.). The Company added that it

¹ The Company defined transients as "variations in the wave shape of electric voltage on time scales of microseconds through tens of cycles" (Exh. DPU-1, at 12).

² The Company noted that, although the summary of annual interruption duration for 1993 was 152 minutes, 49 percent of that duration figure resulted from a four-hour outage on one circuit during a July 8, 1993 lightning storm (Exh. DPU-3-4).

inspected one third of the load break switches every year (id.). The Company stated that it conducted line surveys using infrared heat sensors (id.).

The Company also detailed semi-annual activities (id. at 15). Boston Edison stated that line reclosers were inspected semi-annually with those in service for five years replaced and that wood poles were inspected every three years (id.). The Company indicated that circuit breakers, power transformers, and other substation equipment were inspected on a programmed schedule (id.).

With respect to distribution line monitoring and operation, the Company provided details of how its computerized Supervisory Control and Data Acquisition ("SCADA") system operated (id. at 15-17). The Company stated that a 24-hour customer contact service handled routine trouble calls but that during major system emergencies, restoration efforts were decentralized (id. at 16). Boston Edison noted that an itemized list of daily incidents was provided to the Department (id. at 17).

With respect to reliability tracking/reporting, the Company stated that it measured performance by kVA-hours for each circuit, by average service availability, and by number of outage incidents per circuit in a twelve-month period (id. at 17-18). The Company further stated that average service availability, cumulative outage duration for the average customer, and average interruption frequencies were measured annually on a system-wide basis (id. at 18).

The Company stated that in the year prior to the public hearing, it had improved its system for tracking, follow-up, and accountability in improving circuit performance (id. at 19). The Company explained that it prepared quarterly lists to rank circuit performance in

the previous three- and twelve-month periods (id.). The Company stated that the 20 circuits with the worst performance were then identified and action plans developed for corrective action (id.).

With respect to system design, the Company stated that it had taken measures to address problems at station 416 in Maynard (id. at 20-21). The Company further stated that it had tested distribution transformers on circuits to ensure their ability to perform with minimal impact on the integrity of the transformer or insulation at loadings greater than those listed by the manufacturer for the size of the transformer (id. at 21).

With respect to communications, the Company stated that effective June 1, 1987, it had centralized its system for answering emergency calls (id. at 22). The Company explained that this was done to address earlier complaints from Acton customers regarding calls made to the Company between midnight and 8:00 a.m. (id.). The Company stated that its four emergency lines serving Acton had been busy simultaneously for 120 of the 3500 hours logged at that point (id. at 23). The Company stated that it had requested installation of a bridge or switch connecting two 800 numbers serving Acton to allow emergency calls to flow to the billing information lines in outage situations (id.). Finally, the Company noted that in 1992, it moved its Northern Area Major Emergency Operation Headquarters to the Acton Department of Public Works building, to provide more rapid response and restoration during major emergencies (Exh. DPU-3-9).

With respect to electric heat rates, the Company stated that pursuant to Department Orders, it had eliminated the electric heat rate and replaced it with a rate based on voltage level and time of use (id. at 24-25). The Company explained that following elimination of

the R-3 rate, customers were transferred to the R-1 or residential rate (id. at 26). The Company noted that electric heat customers could opt for the R-4 or optional residence time of use rate which would require installation of a meter capable of recording peak and off-peak usage (id.). The Company also noted that programs and activities designed to assist customers in reducing their consumption were available, but that no program had specifically targeted Acton customers (id. at 27; Exh. DPU-3-17). The Company noted that following the Department's Order in Boston Edison Company, D.P.U. 92-92 (1992) restoring the residential electric heat rate, residential electric heat customers in Acton have been billed under Rate R-3 (Exh. DPU-3-18).

III. ANALYSIS AND FINDINGS

The Petitioners' complaint raises issues regarding quality of service and elimination of the electric heat rate. The Department notes that the Company responded to the Petitioners' concerns by preparing a detailed Report outlining actions taken prior to submission of the report and a plan for further actions to address the issues raised. In addition, Boston Edison's responses to two sets of information requests issued after receipt of the Report indicate that the Company has carried out its plan. The Petitioners have not indicated any disagreement with the representations made by the Company in its Report or subsequent responses to information requests. The Department finds, therefore, that the quality of service complaints raised by the Petitioners have been addressed by the Company.

With respect to the elimination of the electric heat rate, the Department notes that the electric heat or R-3 rate was restored as a result of D.P.U. 92-92 (1992). Boston Edison has indicated that following D.P.U. 92-92, electric heat customers in Acton have been billed at

the R-3 rate. The Department finds, therefore, that this basis for the complaint has been addressed by D.P.U. 92-92 and the Company's actions pursuant to that Order.

IV. ORDER

Accordingly, after due notice and consideration, it is

ORDERED: That the Department's investigation of Boston Edison Company in D.P.U. 87-136 be and hereby is closed.

By Order of the Department,

Kenneth Gordon, Chairman

Mary Clark Webster, Commissioner

Janet Gail Besser, Commissioner

Appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part.

Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. (Sec. 5, Chapter 25, G.L. Ter. Ed., as most recently amended by Chapter 485 of the Acts of 1971).